

91-1119  
NOV 04 1991



STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
133 State Street, Administration Building  
Montpelier, Vermont 05633



October 31, 1991

Charles B. Schwer, Supervisor  
Sites Management Section  
Agency of Natural Resources  
103 So. Main Street  
Waterbury, Vermont 05676

Dear Chuck:

Enclosed are site maps for the following tank pull sites:

- (1) "Old Courthouse Building"  
St. Albans, Vermont  
Site # 91-1074
- (2) District 8 Maintenance Garage  
Enosburg, Vermont
- (3) District 7 Maintenance Garage  
Lyndon, Vermont
- (4) District 5 Maintenance Garage  
New Haven, Vermont
- (5) District 1 Maintenance Garage  
Wilmington, Vermont 91-1119

Site #1

The St. Albans site has definite contamination in MW-1. While no sheen was visible, there was a distinct fuel oil odor in samples taken between 7 and 11 feet below ground surface.

The indicated flow direction determined from a 3 point solution of the monitoring wells is N70W (true north) with a hydraulic gradient of 0.057.

Site #2

The Enosburg site had a PID reading of < 5 ppm from 0-3 feet below ground surface. However, no odor of petroleum was detected.

The indicated flow direction is S77W (true north) with a hydraulic gradient of 0.113.

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Site #3

The Lyndon site has no traces of petroleum in the three wells installed. It is conceivable that the plume could have missed the installed wells given the position of the old tank. At the time of the tank pull a sheen was visible on the water surface in the excavation.

The indicated flow direction at this site is N85W (true north) with a hydraulic gradient of 0.014.

Site #4

The New Haven site showed no signs of petroleum contamination in the wells installed. In both monitoring wells 1 and 2 the contact between fill and the native clay soils was sampled in one split barrel. Both samples were clean.

The flow direction at this site appears to be S87W (true north) with a hydraulic gradient of 0.065.


Site #5

The Wilmington site produced no positive PID readings in the 2 wells installed. An existing well (MW-3), which was installed for a salt contamination study, was used as the up gradient well. The soils at this site are very granular in nature. One would anticipate rapid migration of any contamination at this site.

The calculated flow direction from the 3 wells indicated on the site map is S15E (true north) with a hydraulic gradient of 0.031.

If additional work is required at these sites, please contact Mike Morissette at the Maintenance Division 828-2797.

Sincerely,

  
Alan J. McBean  
Chief Geologist

AJM/sls

Enclosures

STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH DIVISION  
SOILS SUBDIVISION

NOV 04 1991

AUGER DRILLING NOTES

PROJECT/PROJECT NO.: District 1 Maintenance Garage, Wilmington  
DRILLER Raymond Powers DATE: 10-24-91  
NOTES FROM STATION \_\_\_\_\_ TO STATION \_\_\_\_\_

CHECKED BY A. McBean  
DATE CHECKED \_\_\_\_\_

STATION	OFFSET	DEPTH	SOIL DESCRIPTION			
			Field			GAS DETECTION PID READING ppm
			Soil Type	Color	Moisture	
MW-1		0-2	Loam	brn	M	0
		2-4	SaSi	brn	MTW	0
		4-6	Sisa <sup>W</sup> stms	brn	M	0
		6-8	SaGr	brn	MTW	0
		8-9	SaGr	brn	W	0
		(Screened 1 to 9 feet)				
MW-2		0-2	Loam	brn	M	-
		2-4	Si <sup>W</sup> Org	brn	M	0
		4-6	Sisa <sup>W</sup> stms	brn	W	0
		6-8	Sisa	brn	W	0
		8-9	SaSi <sup>W</sup> stms	gr	W	0
		(Screened 1 to 9 feet)				
MW-3		Existing Well - No Data				

# VAOT DISTRICT 1 WILMINGTON GARAGE, TH-9

A. McBEAN  
10-23-91

MW-3

$h_3 = 97.03'$   
TOC = 100.90'

30'

BUILDING

MW - MONITORING WELL

BM - ASSUME ELEV.  
OF 100'

h - HEAD (ft)

TOC - TOP OF CASING

xx - APPROXIMATE  
FENCE LINE

POLE  
CONCRETE  
SLAB

NEW  
+  
OLD  
TANK

PUMP

BM

DIRECTION OF  
FLOW

DRIVE

$h_2 = 91.46'$   
TOC = 94.21'



MW-2

$h_1 = 90.46'$   
TOC = 95.11'



MW-1

MN

HYDRAULIC GRADIENT

0.031

FLOW DIRECTION

S30E

(S15E TRUE N)